

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



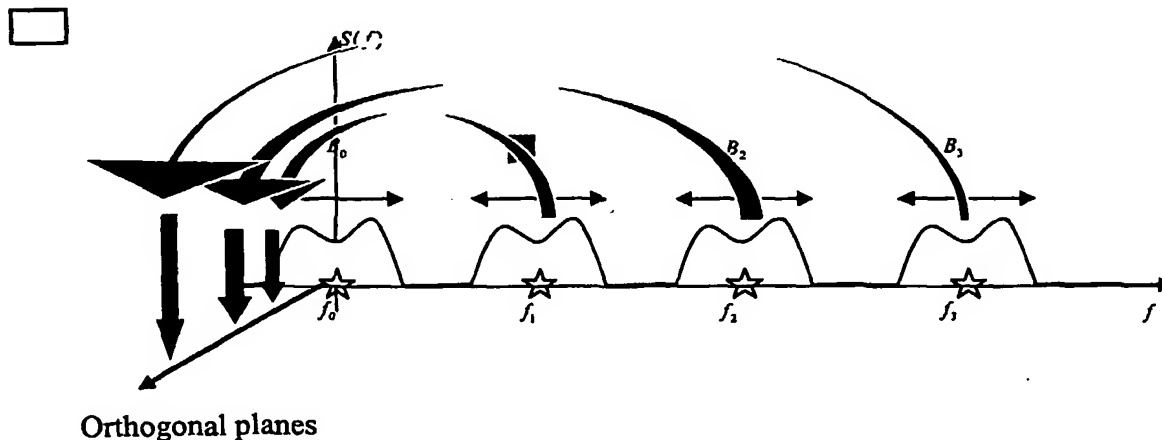
(43) International Publication Date
10 June 2004 (10.06.2004)

PCT

(10) International Publication Number
WO 2004/048909 A2

- (51) International Patent Classification⁷: **G01J** 13663 E. Paradise Dr., Scottsdale, AZ 85259 (US). **DAR-BANIAN, Nazanin** [US/US]; 1817 N. Dobson Road, Apt. 2068, Chandler, AZ 85224 (US).
- (21) International Application Number: PCT/US2003/037298
- (22) International Filing Date: 21 November 2003 (21.11.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/428,432 21 November 2002 (21.11.2002) US
- (71) Applicant (for all designated States except US): **ARIZONA BOARD OF REGENTS** [US/US]; Arizona State University, Post Office Box 873511, Tempe, AZ 85287-3511 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **FARAHANI, Shahin** [US/US]; 1817 N. Dobson Road, Apt. 2068, Chandler, AZ 85224 (US). **KIAEI, Sayfe**, [US/US];
- (81) Designated States (national): CA, JP, US.
- (84) Designated States (regional): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).
- Declaration under Rule 4.17:
— of inventorship (Rule 4.17(iv)) for US only
- Published:
— without international search report and to be republished upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COMPRESSED VECTOR-BASED SPECTRAL ANALYSIS METHOD AND SYSTEM FOR NONLINEAR RF BLOCKS



(57) Abstract: A method and system of simulating components using a compressed signal representation. In some embodiments compressed vector based equivalent signals and blocks are used to model signal processing systems, in particular RF wireless components.